

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 11-15 have been amended. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claim Rejections – U.S.C. 101:

Claims 11-15 were rejected under 35 U.S.C. 101 because the claimed invention was allegedly directed towards non-statutory subject matter. The claims have been amended to address this issue. Thus, reconsideration and withdrawal of this amendment is respectfully requested.

Prior Art Rejections:

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi (US publication 20020039886 A1), and in view of Ishida (US publication 20010019952 A1). This rejection is respectfully traversed for at least the following reasons.

With regards to independent claims 1, 6 and 11, the invention as claimed recites a radio station apparatus that includes “search means for searching for a reference signal already used in a neighboring cell station.” (Independent claim 1; similar language appears in claims 6 and 11.) The Office asserts that Doi teaches this feature of the invention, referring to “search means (40) for searching for a reference signal already used in a neighboring cell station (paragraph [0058]).” However, it is respectfully submitted that these cited sections do not teach searching for a reference signal already used in a neighboring cell station. Rather, Doi teaches obtaining a signal from an antenna, and generating a signal based upon this obtained signal. (paragraph 0058). Further, there is no item “search means 40” in Doi. In fact, the only usage of searching in Doi is in the following paragraph:

“The control unit 80, when it receives a link channel establishment request (step S01), or a link channel establishment re-request (step S02), searches for a channel that can be allocated to the mobile station (step S03). If there is not such a channel (step S04) the control unit 80 controls so that link channel allocation refusal notification is sent to the mobile station (step S08).” (paragraph 119)

There is no teaching or suggestion of searching for a reference signal from a neighboring cell station here; rather the control unit searches for a channel to allocate to the mobile station. There is a stark difference between searching for a channel to allocate, and searching for a reference signal from a neighboring cell station. Thus, it is respectfully submitted that there is no teaching or suggestion in Doi of “search means for searching for a reference signal already used in a neighboring cell station.” If this rejection is maintained, the Office is respectfully requested to point out where these features are found in Doi.

Further, Ishida fails to make up for the deficiencies of Doi as shown above. Ishida also fails to teach searching for a reference signal from a neighboring cell station. Ishida only teaches a base station obtaining such signals from mobile stations. (paragraph 0019) Thus, Ishida also fails to teach the features of independent claims 1, 6 and 11.

The failure of Doi and Ishida to teach “search means,” as utilized in the invention as claimed, is derived from the fact that Doi and Ishida are both trying to solve different problems than the instant invention. Specifically, both Doi and Ishida aim to prevent mutual interferences between a plurality of mobile terminal devices that are multi-connected to a radio base station in the same cell. Doi and Ishida merely disclose the usage of different unique words that are designated for respective terminals when a request for connection is given, such that the unique word designated for one specific terminal is not given in consideration of terminals in other adjacent cells. Thus, although Doi and Ishida are able to avoid interferences with other terminals in the same cell, neither Doi nor Ishida mentions or addresses the problem that interferences with terminals in other cells could still occur.

This problem is addressed by the invention as claimed, partly by the usage of “search means for searching for a reference signal already used in a neighboring cell station.” However, as shown above, and explained herein, both Doi and Ishida fails to teach this feature of the invention as claimed. If this rejection is maintained, the Office is respectfully requested to point out where these features are found in either Doi or Ishida.

The dependent claims 2-3, 7-8 and 12-13 are also patentable for at least the same reasons as the independent claims 1, 6 and 11 on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole.

With regards to independent claims 4, 9 and 14, the invention as claimed recites a radio station apparatus that includes “reference signal allocation means for randomly selecting, when a connection request is received from a terminal device, a reference signal from said storage means based on a cell station number assigned to each cell station and allocating the reference signal to said terminal device.” (Independent claim 4; similar language appears in claims 9 and 14.) The Office Action fails to mention or cite where in either Doi or Ishida the feature of randomly selecting a reference signal from storage means to allocate to a terminal device. It is respectfully submitted that neither Doi nor Ishida teaches this feature of random selection of a signal from storage means. The Office Action correctly asserts that “Doi does not disclose specifically reference signal allocation means (40) for allocating, when a connection request is received from a terminal device, a reference signal different from the reference signal stored in said storage means (70).” (page 4, paragraph 3, lines 1-4) Rather, the Office Action asserts that Ishida teaches this feature. However, Ishida only teaches that a mobile station is able to:

“determine an appropriate value to be used as a UW, send the UW to the wireless base station when requesting a channel assignment to the base station, and use, instead of a UW defined in the PHS standard, the determined UW for establishing a physical slot and transferring communication data to/from the wireless base station.” (paragraph 0087 of Ishida)

However, there is no teaching in this paragraph, or anywhere in Ishida, that the UW is obtained from storage means based on a cell station number assigned to each cell station. Further, as mentioned above, there is no teaching of randomly selecting such a reference signal. Thus, Ishida also fails to teach or suggest all of the features of the independent claims, specifically failing to teach or disclose “reference signal allocation means for randomly selecting, when a connection request is received from a terminal device, a reference signal from said storage means based on a cell station number assigned to each cell station and allocating the reference signal to said terminal device.” If this rejection is maintained, the Office is respectfully requested to point out where these features are found in either Doi or Ishida.

The dependent claims 5, 10 and 15 are also patentable for at least the same reasons as the independent claims 4, 9 and 14 on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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